



## UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,505	01/28/2004	Jozef Brcka	TAZ-246	3486
37694	7590	07/03/2008	EXAMINER	
WOOD, HERRON & EVANS, LLP (TOKYO ELECTRON)			ARANCIBIA, MAUREEN GRAMAGLIA	
2700 CAREW TOWER			ART UNIT	PAPER NUMBER
441 VINE STREET			1792	
CINCINNATI, OH 45202				
NOTIFICATION DATE	DELIVERY MODE			
07/03/2008	ELECTRONIC			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

dgoodman@whepatent.com  
usptodock@whepatent.com

**Advisory Action  
Before the Filing of an Appeal Brief**

<b>Application No.</b>	<b>Applicant(s)</b>	
10/766,505	BRCKA, JOZEF	
<b>Examiner</b>	<b>Art Unit</b>	
Maureen G. Arancibia	1792	

**—The MAILING DATE of this communication appears on the cover sheet with the correspondence address —**

THE REPLY FILED 13 June 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1.  The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a)  The period for reply expires 3 months from the mailing date of the final rejection.  
 b)  The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.  
 Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**NOTICE OF APPEAL**

2.  The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

**AMENDMENTS**

3.  The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
 (a)  They raise new issues that would require further consideration and/or search (see NOTE below);  
 (b)  They raise the issue of new matter (see NOTE below);  
 (c)  They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
 (d)  They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4.  The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5.  Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.

6.  Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7.  For purposes of appeal, the proposed amendment(s): a)  will not be entered, or b)  will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: \_\_\_\_\_

Claim(s) objected to: \_\_\_\_\_

Claim(s) rejected: 34-47

Claim(s) withdrawn from consideration: \_\_\_\_\_

**AFFIDAVIT OR OTHER EVIDENCE**

8.  The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

9.  The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fail to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

10.  The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

**REQUEST FOR RECONSIDERATION/OTHER**

11.  The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet

12.  Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_

13.  Other: See Continuation Sheet

/Maureen G. Arancibia/  
 Examiner, Art Unit 1792

/Parviz Hassanzadeh/  
 SPE, AU 1792

Continuation of 11. does NOT place the application in condition for allowance because: Applicant's arguments filed 13 June 2008 have been fully considered but they are not persuasive.

At the outset, Examiner notes that Claims 34-47 were rejected under 35 U.S.C. 102(b) as being anticipated by Hama because Hama teaches an apparatus having all of the structural features of Applicant's claimed invention, and being structurally capable of performing each and every function recited in the claims. Examiner disagrees that Hama is unrelated to the invention of Applicant or the problem it solves, or that Hama is non-analogous art that would not be applicable under 35 U.S.C. 103(a). Contrary to Applicant's assertions, Hama is directly related to the invention of Applicant and the problem it solves, as Hama expressly teaches an inductively coupled plasma apparatus, the same as Applicant, and seeks to generate an overall uniform plasma, the same as Applicant. (See for example Applicant's Specification, Paragraphs 8-10.)

More specifically, Examiner disagrees with Applicant's assertions that the coil taught by Hama relies on capacitive coupling rather than inductive coupling into the plasma, as claimed by Applicant. Hama expressly and consistently teaches that the coil of Hama is an inductor that inductively couples energy into the plasma to produce an induction plasma. (See numerous citations throughout the entire disclosure of Hama, for example but not limited to Column 1, Lines 10-15; Column 2, Lines 22-27; Column 6, Lines 15-19 and 53-65.) In fact, Hama expressly seeks to avoid undue capacitive coupling into the plasma by the use of the dielectric body interposed between the inductor and the ceiling plate. (Column 6, Lines 19-23; "the dielectric body...works for preventing the capacity [sic] component of the RF antenna 120 from being increased by an influence of the ground.) Moreover, Applicant's claims do not exclude any capacitive coupling from taking place, but only require that inductive coupling does take place. Also, just because Hama does not mention the magnetic field generated in the chamber does not mean that one does not exist. As is well-known from the principles of electromagnetism, a circular or spiral electric current, as generated in the inductor of Hama, necessarily and inherently produces an axial magnetic field according to the right-hand rule. Finally, it is noted in this regard that Applicant's arguments that the coil of Hama produces only capacitive and not inductive coupling must be considered mere attorney speculation not supported by evidence.

In response to Applicant's arguments that Examiner has ignored structure in the means-plus-function language and/or improperly failed to give patentable weight to the functional limitations in the claims, Examiner disagrees. As set forth in the last action, Examiner fully and carefully reviewed the means-plus-function language in the claims, and determined that sufficient structural limitations modified the means-plus-function language in the claims for achieving the specified function, thus not requiring a full 35 U.S.C. 112, sixth paragraph interpretation, wherein Examiner would look to the disclosure as a whole to determine the structure consistent with the function being claimed by the means-plus-function language.

Examiner maintains that the structural limitations in the means-plus-function language have been fully considered, and that the inductor 120 taught by Hama has all of the specified structural features of the claimed invention. Further, Examiner maintains that the functional limitations in the means-plus-function language have also been fully and properly considered. Examiner has set forth a cogent technical reasoning explaining that the structure taught by Hama meets all of the structural limitations in the claims, and that while not expressly taught by Hama, the inductor of Hama would be structurally capable of performing the specified function of coupling RF energy from the RF power source into the plasma processing space within the chamber in a spatially distributed ring, around and centered on the axis, in an alternating high and low plasma density distribution, wherein small cross-section segments of the loop couple energy into the high power density segments of the plasma and the large cross-section segments of the loop couple energy into the low power density segments of the plasma, since the irregularly shaped notches 120a create segments of alternating higher and lower cross-sections and widths in the inductor 120 (Figure 2), and such segments would necessarily create alternating localized areas of lower power density or higher power density due to the relative concentration of the applied RF power by the conductive segments. It is noted that Hama's teaching that the plasma produced in the chamber is uniform taken as a whole does not obviate the structural capability of the segments to produce localized regions of higher or lower plasma density. It is noted that the inductor disclosed in the instant application similarly produces alternating regions of higher or lower plasma density with the goal of producing an overall uniform plasma. (See for example Paragraphs 8-10 of the instant Specification.) Finally, it is noted that Examiner does not rely on any particular case law to justify the rejection in the last office action.

Continuation of 13. Other: It is noted that the amendment to the claims merely corrects an antecedent error, and does not overcome the rejection of the claims under 35 USC 102(b) as being anticipated by Hama.